# Harsh Kumar

8545877642 | harshkumar765421@gmail.com | linkedin.com/in/harshkumar | github.com/harshkumar

#### **EDUCATION**

Kendriya Vidyalaya

C.B.S.E (12th) (89.4 %) Kendriya Vidyalaya

C.B.S.E (10th) (87.4 %)

### Graphic Era Deemed to be University

Bachelor of Technology in Computer Science and Engineering (GPA: 8.73 / 10.00)

Dehradun, Uttarakhand Sept 2021- Present

Shahjahanpur, Uttarpradesh

April 2020 - March 2021

Shahjahanpur, Uttarpradesh

April 2018 - March 2019

## Projects

Multiplayer Chess Game | Node.js, Express.js, Socket.IO, JS, Tailwind CSS

June 2024 - July 2024

- Developed a real-time multiplayer chess game with 100% seamless gameplay using Node.js, Express.js, and Socket.IO to enable efficient server-client communication.
- Designed a responsive interface with Tailwind CSS and JavaScript for a seamless user experience.
- Optimized game performance for real-time synchronization and low-latency gameplay. Live Link: Play Chess Online GitHub: Code

Virtual Mouse | OpenCV, MediaPipe, PyAutoGUI, Python

May 2024 - June 2024

- Implemented a sophisticated hand gesture-based cursor control system using OpenCV, MediaPipe, PyAutoGUI, and pynput, achieving precise movement and control.
- Enabled precise cursor control with single-click and double-click through gesture recognition.
- Integrated a screenshot capture feature, expanding the system's capabilities. GitHub: Code

Algorithm Visualizer | React.js, JavaScript

July 2024 - Aug 2024

- Created an interactive algorithm visualizer in React. is for key graph algorithms: Dijkstra's, BFS, DFS, Bellman-Ford, and Kruskal's.
- Integrated dynamic visualizations to represent algorithm execution, enhancing understanding of graph traversal.
- Improved user experience with smooth animations and intuitive controls.

Live Link: Visualizer GitHub: Code

**Speech Translator** | React.js, JS, APIs for speech-to-text and translation

Dec 2023 - Jan 2024

- implemented a React-based web application for high-accuracy speech-to-text conversion with integrated multi-language translation using modern APIs.
- Integrated multi-language translation features to convert text into various languages.
- Optimized real-time translation for seamless user experience and global accessibility.

Live Link: Speech Translator GitHub: Code

### TECHNICAL SKILLS

Languages: C, C++, SQL, JavaScript, HTML, CSS. Frameworks/Libraries: Express.js, Node.js, ReactJS.

**Developer Tools**: Git, Github, Google Cloud Platform, VS Code.

Libraries: pandas, NumPy, Opency, Mediapipe.

Soft skills and Areas of Interest: Problem Solving, Interpersonal Skills.

Database: MySQL.

### SCHOLASTIC ACHIEVEMENTS

**Solved**: 800+ problems combinely on Leetcode and GFG.

Leetcode: Link GFG: Link

### Relevant Coursework

Computer Science: Data structures and algorithms, Object-Oriented programming, Database management system, operating system, computer networks.